

Dear Bob,

Here's my last effort at a complete program on my own. It not close to Artillery Duel, but it's a start for me.

Math quiz is meant for kids in primary grades for addition & subtraction. I used my 8-year old to design it. It has more than ~~some~~ problems to solve. It keeps a score, # of problems, bonus problems (extra points) plus has changing colors & sound effects.

See what you think. Enclosed is a flow chart & Listing.

Hank

Flow Chart



# MATH QUIZ

52=100

98 ADDRESSES

20 VARIABLES

5-12 TITLE

TITLE ROUTINE

1. 1/16/80 2. Hank CHOPPI  
5 CLEAR; BG=0; FG=7; EX 0,0,100,44,1  
10 CX=-32; CY=0; PRINT "MATH QUIZ"  
11 FOR E=1 TO 500; NEXT E

RM 15 FOR K=1 TO 200; TO 20128; STEP 2; 90 (RM)=0; NEXT RM

INPUT VARIABLES 20 CLEAR; INPUT "P PLUS=1; MINUS=2; BOT=3" A

A-X 30 IF A=1 X=200  
31 IF A=2 X=400  
32 IF A=3 X=600

35 IF (A>3) + (A<1) GOSUB 150; GOTO 20

INPUT VARIABLES 40 CLEAR; PRINT "PICK NUMBERS:"

B+Y 41 PRINT "NO.'S 10 < LESS=1  
42 PRINT "NO.'S 18 < LESS=2  
43 PRINT "NO.'S 100 < LESS=3  
44 PRINT "NO.'S >100 < LESS=4  
45 INPUT "P?"; P=1

P 45 INPUT "P?"; P=1

50 IF B=1 Y=10  
51 IF B=2 Y=18  
52 IF B=3 Y=100  
53 IF B=4 Y=1000  
55 IF (B>4) + (B<1) GOSUB 150; GOTO 40

## VARIABLE TABLE

40-55 PICK RUMPTN

A - PICK'S X (DEFINES ADDRESS)

B - PICK Y (≠ SIZE)

C+D - USED FOR \* USED IN PROBLEMS

E - ANSWER TO MATH PROBLEMS

F - PICKS STATEMENTS FOR NUMERIC \* EQUUS PROB.

G - PICKS STATEMENTS FOR EQUUS PROB

H - PICKS + or - FOR "BOTH" FUNCTIONS

M → # WHEN G

M3 R - USED IF E IS INCORRECT, ALSO S

IF R=1; IF R=4 additional problem

(CONT Pg 3)

START OVER

56 PRINT "PRESS TR(1) WHEN SCORE IS PRINTED TO START OVER", FOR Z=1 TO 999; NEXT Z

INTERSECTION

60-90

START ROUTINE

60 CLEAR; PRINT "READY"; FOR Z=1 TO 500; NEXT Z  
70 CLEAR; PRINT "SET"; FOR Z=1 TO 250; NEXT Z  
80 CLEAR; PRINT "GO!!!!"; FOR Z=1 TO 50; NEXT Z  
90 GOTO X

150 CLEAR; PRINT "DOES NOT COMPUTE!!!!"; FOR Z=1 TO 500; NEXT Z;  
RETURN

150-160 MATHS  
MATHS

START OVER?

200 GOSUB 1000; IF TR(1) GOTO 15  
210 T = RAB(C); IF T=3 GOSUB 2000

X=200 Pz  
200 MATHS FORWHT  
210 MATHS ROUTIN

230 GOSUB 300

230 Gx=-40; Y=40; PRINT #5, C, PRINT "A"; #4, D; PRINT "A"; #2 P=1

230 # MATHS  
240 MATHS MATHS

240 E

250 IF E=1; K=D; GOTO 1100  
260 IF E#1; K=R+1; GOTO 1200

240 MATHS  
240 MATHS

M, R

C+D

300 C=RAB(Y); D=RAB(Y)  
310 IF C+D>Y GOTO 300  
320 M=C+D; RETURN

300-320 PzC'S

MATHS  
70 BE MATHS

X = 400 ALING

STATE AS ADDITION



X = 400 BOT

IF K = 4

MISSING PROBLEM  
4 incorrect ans

Variable TABLE (CONST)

S. auto score

T = Add up letters (T=3)

U, V, W used for letters immediately following

X = Function (+, -, BOTH)

Y = # size (10, 18, 100, 1000)

Z = used for Answer

M = is the answer to problem

400 GOSUB 1000; IF 7K(1) GOTO 15  
410 T = RUB(6); IF T=3 GOSUB 2000  
420 GOSUB 500  
430 QX = -80; QY = 40; PRINT "#5, Q", PRINT "-", "#4, D", PRINT "=", "#3, P+1  
440 INPUT "I?" E  
450 IF E = M K=D; GOTO 1100  
460 IF E # M R=R+1; GOTO 1200

500 Q = RUB(Y); D = RUB(Y)  
510 IF Q-D < 0 GOTO 500  
520 M = Q-D; RETURN

600 H = RUB(2)  
610 IF H = 1 GOTO X = 400  
620 IF H = 2 GOTO X = 200

700 PRINT "The Answer is # 5, M"; R=0; GOTO X

#

27

6.5.

1000  
1000

CLEAR; Box=0, 0, 160, 88, , Bx=Bx+7, Fy=Fy+7  
Cx=4, Cy=8, RndT "Score=", #5, 5, Cx=Cx-8, Cy=-8;  
#4, P, Cx=4, Cy=-16, RndW "# Wins=", #3, 5, RndW

PR 100.  
FOKEN  
FOK  
GAPIN

5+10

$$1100 \quad S = S + 10; \quad F = \text{END}(S)$$

F

1110 FF = 1 PRINT "WAY TO GO!"

1120 IF E=2 PRINT "THAT'S RIGHT!"

1130	IF F=3	PRINT	"YOU'RE OK!"
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1190 IF  $F=4$  PRINT "YOU'RE SMART!"

1150.  $1F = 5$  PRINT  $100.50$  IT!

1160	5010	1200
------	------	------

1170 Готто К.

1200 YF R=1 GOTO 1295

1210	15	R=4	6070	700
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1220	F = RUB (5)
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1230 15 F=1 PRMT "SBKAY"

1240	IF $K=2$ TR/NT	"THAT'S WROONG"
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1250 if  $b=3$  PLANT No way!

1260 1st = 4 PRAD - TRY AGAIN

1270	1555	PLANT "THICK"
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1280	15	5	6070	1400
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1270	17	4-1	6070	246
1283	17	4-1	6070	246

[illegible]

5-20

1295 S=5-20; J=5+1; GOTO 1220

1100	ADD5 10 TO SCORE
1110-1150	PICK 5 1 OF 5 "CORRECT"

STATSMARKS

1160	IF BOXES T.3
1170	RETURNED TO FLUX

1200 if  $k=1, 2, \text{ or } 3$

$$1210 \quad 15 \quad R=4$$

1220-1270 Pick's 10F5 "McDon

## STATION 5

1280 1F 2045

1290 v 1292 IN BOTH "OPERATION"

RECENT PROBLEMS FOR

+ or - operation

1295 Deduct amount

# BONUS ROUTINES

RIGHT

S+40

G

1300 S = S + 40 ; G = RND(3)  
1310 IF G = 1 PRINT "YEA!!!"  
1320 IF G = 2 PRINT "YAHOO!!!"  
1330 IF G = 3 PRINT "WOW!!!"  
1340 GOTO X

1300 ADD TO SCORE

1310-1340 PICKS ONE OF 3  
STATEMENTS

1340 RETURN

WRONG

S-5

1400 S = S - 5 ; G = RND(3)  
1410 IF G = 1 PRINT "BOO!!!"  
1420 IF G = 2 PRINT "WRONG!!!"  
1430 IF G = 3 PRINT "TSK! TSK!"  
1440 GOTO X

1400 - SUBTRACT FROM SCORE

1410-1440 PICKS ONE OF 3  
STATEMENTS

1440 RETURN

BONUS ROUTINE

U, V, W

2000 FOR V = 1 TO 5 ; F(19) = 40 ; F(17) = 30 ; F(21) = 42 ; F(22) = 10 ; FC = F3  
2010 FOR U = 30 TO 20 STEP -1 ; F(16) = U ; NEXT U ; FC = FC + 7  
2020 FOR U = 20 TO 30 ; F(16) = U ; NEXT U  
2030 NEXT V  
2040 FOR W = 22 TO 16 STEP -1 ; F(W) = 0 ; NEXT W  
2050 NT = 3 ; RETURN

2025 NT = 0 ; CX = -68 ; CY = -8 ; PRINT "BONUS!!!"

2000 SETS SOUND PORTS + FC  
RED

2010 STEPS MASTER OSC PART  
DOWN ; RESETS FC TO 7

2020 STEPS MASTER OSC PART  
UP

2030 DOES SOUND ROUTINE ST

2040 RESETS SOUND PORTS TO

2050 RESET NT

2025 SHOTS OFF SYS SOUND TO  
PRINT EQUUS